

Amendments to the Specification:

Please amend the paragraph beginning at page 1, line 5 as follows:

This application is a continuation of U.S. Patent Application No. 09/616,289, filed July 14, 2000, which is a continuation-in-part of U.S. Patent Application No. USSN 09/517,849, filed March 2, 2000, which ~~is~~ was a continuation-in part of U.S. Patent Application No. USSN 08/979,608, filed November 26, 1997, which claimed priority from U.S. Provisional Application No. USSN 60/031,930, filed November 27, 1996, and U.S. Provisional Application No. USSN 60/048,547, filed June 3, 1997. These applications are incorporated herein by reference in their entirety.

Please amend the paragraph beginning at page 6, line 1 as follows:

Figs. 2A-1 to 2A-3 depict ~~Fig. 2A depicts~~ the nucleotide sequence (SEQ ID NO: 48) and amino acid sequence (SEQ ID NO: 47) of rabbit LBP-2.

Please amend the paragraph beginning at page 6, line 7, as follows:

Fig. 3 depicts the amino acid sequence of amino acids 319 to ~~350~~ 550 of rabbit LBP-2 (SEQ ID NO: 3).

Please amend the paragraph beginning at page 6, line 9, as follows:

Fig. 4 depicts the amino acid sequence of amino acids 299 to ~~350~~ 550 of rabbit LBP-2 (SEQ ID No: 4).

Please amend the paragraph beginning at page 6, line 11 as follows:

Figs. 5A to 5B depict ~~Fig. 5 depicts~~ the amino acid sequence of rabbit LBP-3 (SEQ ID NO: 5). Differences in amino acids between rabbit and human LBP-3 are depicted in bold type.

Please amend the paragraph beginning at page 6, line 15 as follows:

Figs. 7A-1 to 7A-3 depict ~~Fig. 7A depicts~~ the nucleotide sequence (SEQ ID NO: 45) and amino acid sequence (SEQ ID NO: 43) of human LBP-2.

Please amend the paragraph beginning at page 6, line 20 as follows:

Figs. 8A-1 to 8A-3 depict ~~Fig. 8A depicts~~ the nucleotide sequence (SEQ ID NO: 46) and amino acid sequence (SEQ ID NO: 44) of human LBP-3.

Please amend the paragraph beginning at page 6, line 22 as follows:

Figs. 8B-1 to 8B-2 depict ~~Fig. 8B depicts~~ the amino acid sequence of amino acids 17 to 546 of human LBP-3 (SEQ ID NO: 8). Differences in amino acids between rabbit and human LBP-3 are depicted in bold type. Where the sequences depicted in Fig. 8A and Fig. 8B differ, Fig. 8A represents the human LBP-3 sequence.

Please amend the paragraph beginning at page 6, line 28 as follows:

Figs. 10A to 10B depict ~~Fig. 10 depicts~~ the cDNA sequence encoding rabbit LBP-1 (SEQ ID NO: 10) and the corresponding amino acid sequence (SEQ ID NO:1). Differences in amino acids between rabbit and human LBP-1 are depicted in bold type.

Please amend the paragraph beginning at page 6, line 31 as follows:

Figs. 11A to 11C depict ~~Fig. 11 depicts~~ a cDNA sequence encoding a portion of rabbit LBP-2 (SEQ ID NO: 11) and the corresponding amino acid sequence (SEQ ID NO:2). Differences in amino acids between rabbit and human LBP-2 are depicted in bold type. Where the sequences depicted in Fig. 2A and Fig. 11 differ, Fig. 2A represents the rabbit LBP-2 sequence.

Please amend the paragraph beginning at page 7, line 4, as follows:

Figs. 12A to 12B depict ~~Fig. 12 depicts~~ a cDNA sequence of nucleotides 256 to 1617 (SEQ ID NO: 12) of SEQ ID NO: 11 of rabbit LBP-2 and the corresponding amino acid sequence (SEQ ID NO:3).

Please amend the paragraph beginning at page 7, line 6, as follows:

Fig. 13 depicts a cDNA sequence of nucleotides 196 to 1617 (SEQ ID NO: 13) of SEQ ID NO: 11 of rabbit LBP-2 and the corresponding amino acid sequence (SEQ ID NO:4).

Please amend the paragraph beginning at page 7, line 8, as follows:

Figs. 14A to 14F depict ~~Fig. 14 depicts~~ the cDNA sequence encoding rabbit LBP-3 (SEQ ID NO: 14) and the corresponding amino acid sequence (SEQ ID NO:5). Differences in amino acids between rabbit and human LBP-3 are depicted in bold type.

Please amend the paragraph beginning at page 7, line 11, as follows:

Figs. 15A to 15B depict ~~Fig. 15 depicts~~ the cDNA sequence encoding human LBP-1 (SEQ ID NO: 15) and the corresponding amino acid sequence (SEQ ID NO:6). Differences in amino acids between rabbit and human LBP-1 are depicted in bold type.

Please amend the paragraph beginning at page 7, line 14, as follows:

Figs. 16A to 16B depict ~~Fig. 16 depicts~~ a cDNA sequence encoding a portion of human LBP-2 (SEQ ID NO: 16) and the corresponding amino acid sequence (SEQ ID NO:7). Differences in amino acids between rabbit and human LBP-2 are depicted in bold type.

Please amend the paragraph beginning at page 7, line 17, as follows:

Figs. 17A to 17D depict ~~Fig. 17 depicts~~ a cDNA sequence encoding a portion of human LBP-3 (SEQ ID NO: 17) and the corresponding amino acid sequence (SEQ ID NO:8). Differences in amino acids between rabbit and human LBP-3 are depicted in bold type. Where

the sequences depicted in Fig. 8A and Fig. 17 differ, Fig. 8A represents the human LBP-3 sequence.

Please amend the paragraph beginning at page 7, line 21, as follows:

Fig. 18 depicts the cDNA sequence encoding BHF-1 (SEQ ID NO: 18) and corresponding amino acid sequence (SEQ IDNO:9).

Please amend the paragraph beginning at page 7, line 22, as follows:

Fig. 19 corresponds to the amino acid sequence of rabbit LBP-1 (top sequence; SEQ ID NO:1) in alignment with the amino acid sequence of human LBP-1 (bottom sequence; SEQ ID NO:6).

Please amend the paragraph beginning at page 7, line 24, as follows:

Fig. 20 corresponds to the amino acid sequence of a portion of the amino acid sequence of rabbit LBP-2 (top sequence; amino acid residues 331-550 of SEQ ID NO:47) in alignment with a portion of the amino acid sequence of human LBP-2 (bottom sequence; SEQ ID NO:7).

Please amend the paragraph beginning at page 7, line 27, as follows:

Fig. 21 corresponds to the amino acid sequence of rabbit LBP-3 (top sequence; SEQ ID NO:5) in alignment with the amino acid sequence of a portion of human LBP-3 (bottom sequence; SEQ ID NO:44).

Please amend the paragraph beginning at page 7, line 30, as follows:

Figs. 22A to 22E depict ~~Fig. 22 depicts~~ the genomic sequence of human LBP-1 (SEQ ID NO:49) and corresponding amino acid sequence (SEQ ID NO:6).

Please amend the paragraph beginning at page 7, line 31, as follows:

Figs. 23A to 23F depict Fig. 23 depicts the genomic sequence of human LBP-2 (SEQ ID NO:50) and corresponding amino acid sequence (SEQ ID NO:43).

Please amend the paragraph beginning at page 8, line 1, as follows:

Figs. 24A to 24I depict Fig. 24 depicts the genomic sequence of human LBP-3 (SEQ ID NO:51) and corresponding amino acid sequence (SEQ ID NO:44).

Please amend the paragraph beginning at page 8, line 11, as follows:

This invention provides for an isolated polynucleotide comprising a polynucleotide encoding the polypeptide having the amino acid sequence of rabbit LBP-1 as set forth in Fig. 1 (SEQ ID NO: 1); rabbit LBP-2 as set forth in Fig. 2A (SEQ ID NO: 47); a portion of rabbit LBP-2 as set forth in Fig. 2B (SEQ ID NO: 2); 319 to 350 550 of rabbit LBP-2 as set forth in Fig. 3 (SEQ ID NO: 3); 299 to 350 550 of rabbit LBP-2 as set forth in Fig. 4 (SEQ ID NO: 4); rabbit LBP-3 as set forth in Fig. 5 (SEQ ID NO: 5); human LBP-1 as set forth in Fig. 6 (SEQ ID NO: 6); human LBP-2 as set forth in Fig. 7A (SEQ ID NO: 43); 322 to 538 of human LBP-2 as set forth in Fig. 7B (SEQ ID NO: 7); human LBP-3 as set forth in Fig. 8A (SEQ ID NO: 44); 17-546 of human LBP-3 as set forth in Fig. 8B (SEQ ID NO: 8); 14 to 33 of human (SEQ ID NO:6) or rabbit (SEQ ID NO:1) LBP-1, called BHF-1, as set forth in Fig. 9 (SEQ ID NO: 9); a polynucleotide capable of hybridizing to and which is at least about 80% identical, more preferably at least about 90% identical, more preferably yet at least about 95% identical, and most preferably at least about 98% identical to any of the above polynucleotides, and wherein the encoded polypeptide is capable of binding to LDL; or a biologically active fragment of any of the above polynucleotides wherein the encoded polypeptide is capable of binding to LDL.

Please amend the paragraph beginning at page 11, line 26, as follows:

This invention also includes an isolated polypeptide comprising a polypeptide having amino acid residues 329-343 (SEQ ID NO: 19), 329-354 (SEQ ID NO: 20), 344-354 (SEQ ID

NO: 21) or 529-538 (SEQ ID NO: 22) as set forth in Fig. 7A (SEQ ID NO: 47); amino acid residues 14-43 (SEQ ID NO: 23) or 38-43 (SEQ ID NO: 24) as set forth in Fig. 1 (SEQ ID NO: 1) and Fig. 6 (SEQ ID NO: 6); amino acid residues 338-353 (SEQ ID NO: 25), 338-365 (SEQ ID NO: 26), 354-365 (SEQ ID NO: 27) or 444-453 (SEQ ID NO: 28) as set forth in Fig. 2A (SEQ ID NO: 47); amino acid residues 96-110 (SEQ ID NO: 29) as set forth in Fig. 5 (SEQ ID NO: 5); and amino acid residues 69-75 (SEQ ID NO: 41) as set forth in Fig. 8A (SEQ ID NO: 8 44); or a polypeptide which is at least about 80% identical, more preferably at least about 90% identical, more preferably yet at least about 95% identical, and most preferably at least about 98% identical to the above polypeptides, and wherein said polypeptide is capable of binding to LDL; or a biologically active fragment of any of the above polypeptides wherein the fragment is capable of binding to LDL.

Please amend the paragraph beginning at page 34, line 3, as follows:

Thus, a diagnostic embodiment of the invention is the adaptation of, e.g., a peptide complementary to one of the LBPs, by radiolabeling it and using it as an injectable imaging agent for detection of occult atherosclerosis. The peptide is selected from those known to bind to LBPs, e.g., RRRRRRRR (SEQ ID NO:52) or KKLKLXX (SEQ ID NO:53), or any other polycationic peptide which binds to the highly electronegative domains of the LBPs. For extracorporeal detection with a gamma scintillation (Anger) camera, technetium-binding ligands, e.g., CGC, GGCGC, or GGCGCF, can be incorporated into the peptides at the N-terminus or C-terminus for <sup>99m</sup>Tc labeling. For external imaging by magnetic resonance imaging (MRI), e.g., the gadolinium-binding chelator, diethylene triamine penta-acetic acid (DTPA), is covalently bound to the N- or C-terminus of the peptides. In yet other embodiments, the LBP-binding peptides are covalently bound, e.g., to magnetic ion oxide particles by standard methods known to those skilled in the art, e.g., conjugating the peptides with activated polystyrene resin beads containing magnetic ion oxide.